

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of  
ANTONIUS A.C.M. KALKER

Serial No. 09/423,273

Filed: NOVEMBER 4, 1999

Title: EMBEDDING AUXILIARY DATA IN A SIGNAL

**Mail Stop Petitions**

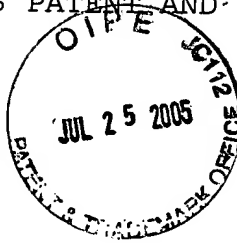
Commissioner for Patents, Alexandria, VA 22313-1450

Atty. Docket

PHN 17-317

Group Art Unit: 2137

Examiner: MATTHEW SMITHERS



*DAG*  
*ZMN*

PETITION TO WITHDRAWN HOLDING OF ABANDONMENT BASED ON  
FAILURE TO TIMELY FILE A PROPER REPLY

Sir:

Applicant requests that the Patent and Trademark Office withdraw the Notice of Abandonment (attached as Exhibit 1) that was mailed June 24, 2005 for failure to respond to an Office Action dated March 30, 2004.

Specifically, on July 30, 2004, in response to the Office Action dated March 30, 2004, Applicant submitted to the Patent and Trademark Office by facsimile an Amendment (attached as Exhibit 2) containing a complete response to the March 30, 2004 Office Action.

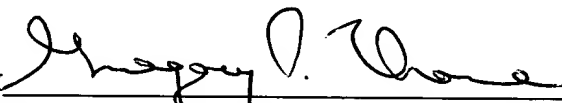
The Certificate of Facsimile Transmission on the Amendment certifies that the Amendment was properly faxed on July 30, 2004. The submittal date of July 30, 2004 is well within the six months permitted to respond to the Office Action before abandonment of the application. Thus, the proper form and response were timely mailed as permitted by 37 C.F.R. 1.8(a).

The acknowledgment of "Auto-Reply Facsimile Transmission" (attached as Exhibit 3) indicates that the document consisting of 11 pages was received by the mailroom on July 30, 2004.

Accordingly, it is requested that the Notice of Abandonment dated June 24, 2005 be withdrawn, the response submitted on July 30, 2004 be entered, and the status of the above-identified application be changed from abandoned to pending.

If there are any difficulties regarding this matter, it is requested that the undersigned be contacted at the telephone number indicated below.

Respectfully submitted,

By   
Gregory L. Thorne, Reg. 39,398  
Senior Corporate Patent Counsel  
(914) 333-9665

Encl.:

- Exhibit 1: Copy of Notice of Abandonment dated  
June 24, 2005
- Exhibit 2: Copy of Amendment dated July 30, 2004
- Exhibit 3: Copy of Auto-Reply Facsimile Transmission

**CERTIFICATE OF MAILING**

It is hereby certified that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to:

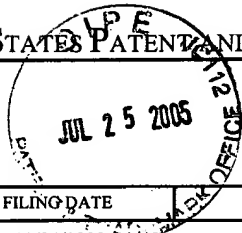
COMMISSIONER FOR PATENTS  
Alexandria, VA 22313

On July 22, 2005

By Neemi Chgoe



# UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/423,273	11/04/1999	ANTONIUS A.C.M. KALKER	PHN-17.317	6551

24737 7590 06/24/2005

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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EXAMINER

SMITHERS, MATTHEW

ART UNIT

PAPER NUMBER

2137

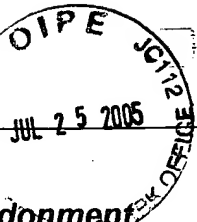
DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

DOCKETED	DATE	INITIAL
COMPUTER		
SECRETARY		
ATTORNEY		

05 JUN 28 AM 10:14

**Notice of Abandonment**



Application No.

09/423,273

Examiner

Matthew B. Smithers

Applicant(s)

KALKER, ANTONIUS A.C.M.

Art Unit

2137

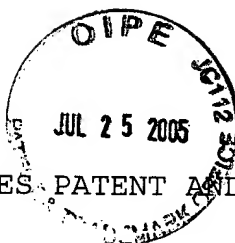
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 30 March 2004.
  - (a) ☐ A reply was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply (including a total extension of time of \_\_\_\_\_ month(s)) which expired on \_\_\_\_\_.
  - (b) ☐ A proposed reply was received on \_\_\_\_\_, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.  
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
  - (c) ☐ A reply was received on \_\_\_\_\_ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
  - (d) ☐ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
  - (a) ☐ The issue fee and publication fee, if applicable, was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
  - (b) ☐ The submitted fee of \$\_\_\_\_\_ is insufficient. A balance of \$\_\_\_\_\_ is due.  
The issue fee required by 37 CFR 1.18 is \$\_\_\_\_\_. The publication fee, if required by 37 CFR 1.18(d), is \$\_\_\_\_\_.
  - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
  - (a) ☐ Proposed corrected drawings were received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply.
  - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on \_\_\_\_\_ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☒ The reason(s) below:  
  
Contacted by Atty. Gregory Thorne on June 21, 2005. Mr. Thorne indicated no reply to the outstanding office action was sent.

*Matthew B. Smithers*  
Matthew B. Smithers  
Primary Examiner  
Art Unit: 2137

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of  
ANTONIUS A.C.M. KALKER  
Serial No. 09/423,273  
Filed: NOVEMBER 4, 1999

Atty. Docket  
PHN 17,317  
Group Art Unit: 2134  
Examiner: M. SMITHERS  
CONF. No. 6551

TITLE: EMBEDDING AUXILIARY DATA IN A SIGNAL

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

CERTIFICATE OF FACSIMILE TRANSMISSION  
TO THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(703) 872-9306

I certify that this document consisting of 11 pages is being transmitted via facsimile to Examiner M. Smithers of the United States Patent and Trademark Office at the telephone number set forth above on July 30, 2004.

By Gregory L. Thorne

Gregory L. Thorne, Reg. 39,398  
Senior Patent Counsel

AMENDMENT

Sir:

In response to the Office Action of March 30, 2004, please amend the application as follows:

**Amendments to the Claims** begin on page 2 of this paper.

**Remarks/Arguments** begin on page 8 of this paper.

PL 17317 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) A method of embedding auxiliary data (K) in an information signal (P), comprising the steps of:
  - shifting one or more predetermined watermark patterns (W2) one or more times over a vector (k), the respective vector(s) being indicative of said auxiliary data (K); and
  - embedding said shifted watermark(s) (W2') in said information signal, ~~wherein the embedded watermark has dimensions less than the dimension of the information signal, and the step of embedding comprises repeating said watermark substantially over the extent of the information signal.~~
2. (Original) A method as claimed in claim 1, including the step of further embedding the predetermined watermark (W2) to provide a reference for said vector (k).
3. (Original) A method as claimed in claim 2, wherein said predetermined watermark pattern (W2) is embedded with a different sign.

4. (Original) A method as claimed in claim 1, including the step of embedding a further predetermined watermark (W1) to provide a reference for said vector (k).

5. (Canceled)

6. (Currently amended) A method of detecting auxiliary data in an information signal, comprising the steps of:

- detecting one or more embedded watermarks (W2');
- determining a vector (k) by which each detected watermark (W2') is shifted with respect to a predetermined watermark (W2);

and

- retrieving said auxiliary data from said vector(s) ~~, wherein the embedded watermark (W2') has a dimension less than the dimension of the information signal, the method comprising the step of dividing the information signal with the embedded watermark into subsignals having said dimensions, and adding said subsignals.~~

7. (Original) A method as claimed in claim 6, wherein one of said embedded watermarks is the predetermined watermark pattern (W2), the sign of said predetermined watermark providing a reference for said vector(s).

8. (Original) A method as claimed in claim 6, including the step of detecting a further embedded watermark (W1) to provide a reference for said vector(s).

9. (Original) A method as claimed in claim 6, wherein the step of detecting an embedded watermark (W2') includes determining the correlation between the information signal and shifted versions of said predetermined watermark (W2), the vector(s) being defined by the shifted version(s) for which said correlation exceeds a given threshold.

10. (Currently amended) A method as claimed in claim 6, wherein the embedded watermark (W2') has a dimension less than the dimension of the information signal, the method comprising the step of dividing the information signal with the embedded watermark into subsignals having said dimensions, and adding said subsignals , and determining the vector (k) by which the embedded watermark (W2') is shifted with respect to a predetermined watermark (W2) having the same dimensions.

11. (Currently amended) An arrangement for embedding auxiliary data (K) in an information signal (P), comprising:



- means for shifting one or more predetermined watermark patterns (W2) one or more times over a vector (k), the respective vector(s) being indicative of said auxiliary data (K); and

- means for embedding said shifted watermark(s) (W2') in said information signal, ~~wherein the embedded watermark(s) have dimensions less than the dimension of the information signal, and the step of embedding comprises repeating said watermark substantially over the extent of the information signal.~~

12. (Currently amended) An arrangement for detecting auxiliary data in an information signal, comprising:

- means for detecting one or more embedded watermarks (W2') ~~that have dimensions less than the dimension of the information signal and are repeatedly embedded substantially over the extent of the information signal;~~

- means for determining a vector (k) by which each detected watermark (W2') is shifted with respect to a predetermined watermark (W2);

- means for retrieving said auxiliary data from said vector(s).

13. (Previously presented) A device for recording and/or playing back an information signal, comprising means for disabling recording and/or playback of the signal in dependence upon auxiliary data embedded in said video signal, wherein the device

comprises an arrangement for detecting said auxiliary data as claimed in claim 11.

14. (Currently amended) An information signal (P) with auxiliary data (K) in the form of an embedded watermark (W2'), wherein the embedded watermark is a shifted version of a predetermined watermark (W2), ~~and wherein the embedded watermark has dimensions less than the dimension of the information signal (P) and is repeatedly embedded substantially over the extent of the information signal (P),~~ the vector (k) over which the predetermined watermark has been shifted being indicative of said auxiliary data.

15. (Currently amended) A storage medium ~~(71)~~ having stored thereon an information signal (P) with auxiliary data (K) in the form of an embedded watermark (W2'), ~~wherein the embedded watermark has dimensions less than the dimension of the information signal (P) and is repeatedly embedded substantially over the extent of the information signal (P), and~~ wherein the embedded watermark is a shifted version of a predetermined watermark (W2), the vector (k) over which the predetermined watermark has been shifted being indicative of said auxiliary data.

16. (New) A method as claimed in claim 1, wherein the embedded watermark has dimensions less than the dimension of the information

signal, and the step of embedding comprises repeating said watermark over the extent of the information signal.

### REMARKS

This amendment is responsive to the Office Action that issued March 30, 2004. In light of the above amendments and the following remarks, reconsideration and removal of the grounds for rejection are respectfully requested.

The Applicant notes that the present Office Action reverses the indication that Claims 5 and 10 would be allowed if put into independent format. It was under this premise that the Applicant previously amended the originally filed claims. The Applicant never subscribed to the original rejection of the originally filed claims and intended to file a continuation application to the canceled subject matter as also previously indicated.

In amending the claims herein, the Applicant has merely put the claims back into the same form as originally submitted with the exception of deleting reference numbers to put the claims in accordance with standard U.S. claim practice. Claim 16 is added herein and directly corresponds to originally submitted Claim 5, cancelled previously as a direct result of the original indication that Claim 5 was allowable. Accordingly, the claims have not been amended for the purposes of patentability. In fact, the claims are in substantially the same form as originally submitted and therefore should be interpreted to have the full range of equivalents under the doctrine of equivalents.

In the Office Action, it is acknowledged that the Applicant has made a claim for priority based on an application filed in Europe on March 8, 1998, however the Applicant has not filed a certified copy of European Application 98200656. It is respectfully submitted that this pending application is a national application filing under 35 U.S.C. 371. The certified copy of the priority document indicated was filed during the original PCT filing as required and was noted on the cover of the published international application as forwarded by the international branch and forwarded by the applicant (see, MPEP 201.13(b)). Accordingly, it is respectfully submitted that the requirement of submittal of a certified copy of the priority document has been fulfilled and an indication to that effect is respectfully requested.

Claims 1-4 and 6-15 are rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,427,012 to Petrovic in view of U.S. Patent No. 6,185,312 to Nakamura ("Nakamura").

This rejection of the claims is respectfully traversed. In review of Petrovic, I have not been able to find a disclosure or suggestion in the passages referred to (Col. 4, lines 12-59 and Col. 5, line 27 to Col. 6, line 59) that a predetermined watermark is shifted over a vector, and that said vector is indicative of the auxiliary data to be embedded as required by each of the currently pending claims.

In Petrovic, the auxiliary data that is embedded is a bit string  $b_1..b_N$  that is converted into an auxiliary data signal  $m(t)$  according to equation (3) and shown in FIG. 3. A replica (41) of the cover signal (2) is modulated with this auxiliary signal  $m(t)$ . The signal  $w(t)$  (8) thus obtained is added (12) (see, FIG. 2) to the cover signal. Accordingly, an embedded signal  $w(t)$  represents a given payload  $b_1..b_N$ . The embedded signal is shown in equation (2).

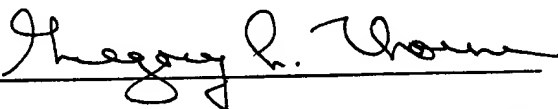
Petrovic in contrast does not disclose or suggest "shifting one or more predetermined watermark patterns (W2) one or more times over a vector (k), the respective vector(s) being indicative of said auxiliary data (K)" as required by Claim 1 as originally submitted. Further, neither does Petrovic disclose or suggest "determining a vector (k) by which each detected watermark (W2') is shifted with respect to a predetermined watermark (W2); and - retrieving said auxiliary data from said vector(s)" as required by originally submitted 6. Further still, Petrovic does not disclose or suggest "means for shifting one or more predetermined watermark patterns (W2) one or more times over a vector (k), the respective vector(s) being indicative of said auxiliary data (K)" as required by originally submitted 11; nor "means for determining a vector (k) by which each detected watermark (W2') is shifted with respect to a predetermined watermark (W2); - means for retrieving said auxiliary data from said vector(s)" as required by originally submitted Claim

12; nor "wherein the embedded watermark is a shifted version of a predetermined watermark (W2), the vector (k) over which the predetermined watermark has been shifted being indicative of said auxiliary data" as required by Claim 14; nor "wherein the embedded watermark is a shifted version of a predetermined watermark (W2), the vector (k) over which the predetermined watermark has been shifted being indicative of said auxiliary data" as required by Claim 15.

Accordingly, it is respectfully submitted that Claims 1, 6, 11, 12, 14, and 15 are allowable over Petrovic and an indication to that effect is respectfully requested. Claims 2 -4, 7-10, and 13 respectively depend from one of Claims 1, 6, and 11 and are allowable for at least that reason as well as for the separately patentable elements contained in each of the claims. Accordingly, separate consideration and allowance of each of Claims 2 -4, 7-10, and 13 is respectfully requested.

This amendment places the instant application in condition for immediate allowance and such action is respectfully requested.

Respectfully submitted,

By 

Gregory L. Thorne, Reg. 39,398  
Senior Patent Counsel  
(914) 333-9665  
July 30, 2004

## Auto-Reply Facsimile Transmission



JUL 25 2005

TO: Fax Sender at 19142749005

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Date Received

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7/30/2004 6:36:11 PM [Eastern Daylight Time]

11 (including cover page)

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Cover  
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Gregory L. Thorne, Reg. 39,398  
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AMENDMENT

Sir:

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PAGE 1/11 \*RCVD AT 7/30/2004 4:35:11 PM [Eastern Daylight Time] \*SND:USPTO-DEFXRF-101 \*DMS:8729306 \*CSID:19142749005 \*DURATION (mm:ss):02:44

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